

Applicant: P. Bonutti
Application No.: 09/941,327
Examiner: V. Bui

Amendments to the Claims:

1. (Currently amended) A tubular stent for supporting arterial arterial and venous conduits in the human body, the tubular stent comprising: a longitudinal cylindrical metal base structure having at least two different patterns along its longitudinal length, the patterns joined by struts having a predetermined articulation, the base structure coated by at least two layers having a depth not exceeding ten microns.

2. (Currently amended) The stent according to claim 1 wherein one a first pattern is a closed cell design and a second pattern is an open cell design.

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3.-11. (Cancelled)

12. (Currently amended) The stent according to claim 8 1 wherein the different circumferential members at least two different patterns vary in base metal thickness.

13. (Currently amended) The stent according to claim 8 1 wherein the coatings are of a radiopaque substance.

14. (Currently amended) The stent according to claim 8 1 wherein the coatings are of a biological substance.

15. (Currently amended) The stent according to claim 8 1 wherein the coatings are polymeric.

16. (Cancelled)

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17. (Currently amended) The stent according to claim 16 14 wherein the single first pattern at each end of the base structure has a thicker layer of the biological substance than the second pattern at a mid-portion of the base structure.

18.-22. (Cancelled)

23. (New) A tubular stent comprising:
a longitudinal cylindrical base structure having a first end portion, a second end portion, and a mid-portion interposed between the first and second end portions, the first and second end portions having a first pattern and the mid portion having as second pattern different from the first pattern, the second pattern including a plurality of articulations; and
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a plurality of linear strut members connecting the mid portion to the first and second end portions, wherein the mid portion includes a plurality of articulations.

24. (New) The tubular stent of claim 23, wherein the plurality of articulations are a plurality of undulating members.

25. (New) The tubular stent of claim 23, wherein the first pattern is an open cell design and the second pattern is a closed cell design.

26. (New) The tubular stent of claim 23, wherein the longitudinal cylindrical base structure is made of a metal.

27. (New) The tubular stent of claim 23, wherein the longitudinal cylindrical base structure has a thickness greater at the first and second end portions than at the mid portion.

28. (New) The tubular stent of claim 23, wherein the first and second end portions and the mid portion are coated with at least two layers.

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29. (New) The tubular stent of claim 28, wherein the at least two layers comprise a material selected from the group consisting of metallic, biological, radiopaque material, synthetic material, polymeric material, and combinations thereof.

30. (New) The tubular stent of claim 28, wherein the at least two layers have a thickness greater on the first and second end portions than on the mid portion.

31. (New) The tubular stent of claims 28, whercin the at least two layers have a thickness of less than about 10 micron.

32. (New) A tubular stent comprising:
a longitudinal cylindrical base structure having a first end portion, a second end portion, and a mid-portion interposed between the first and second end portions, the first and second end portions having an open cell design and the mid-portion having a closed cell design, wherein the closed cell design includes a plurality of undulating member;

a plurality of linear strut members connecting the mid-portion to the first and second end portions; and

a surface coating having at least two layers coating the longitudinal cylindrical base structure.

33. (New) The tubular stent of claim 32, wherein the longitudinal cylindrical base structure has a thickness greater at the first and second end portions than at the mid portion.

34. (New) The tubular stent of claim 32, wherein the at least two layers comprise a material selected from the group consisting of metallic, biological, radiopaque material, synthetic material, polymeric material, and combinations thereof.

35. (New) The tubular stent of claim 32, wherein the at least two layers have a thickness greater on the first and second end portions than on the mid portion.

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36. (New) The tubular stent of claims 32, wherein the at least two layers have a thickness of less than about 10 micron.